

EXHIBIT 11

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

WAYMO LLC,

Plaintiff,

Case

vs.

No. 3:17-cv-00939-WHA

UBER TECHNOLOGIES, INC.;

OTTOMOTTO LLC; OTTO TRUCKING LLC,

Defendants.

_____/

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY
VIDEOTAPED DEPOSITION OF GAETAN PENNECOT
VOLUME III (PAGES 275 to 478)
FRIDAY, JUNE 16, 2017

Reported by:

Anrae Wimberley

CSR No. 7778

Job No. 2641228

Page 275

1 found on your computer and that we found on Uber's 10:17:32
2 servers that we're going to be going over today. 10:17:35
3 Is that all right? 10:17:36
4 A. This is correct. 10:17:37
5 MR. JAFFE: I'm going to start with a document 10:17:45
6 labeled UBER00072128. And this is going to be Exhibit 10:17:49
7 106. 10:17:49
8 THE REPORTER: I think you said you're starting 10:17:49
9 with 107.
10 MR. JAFFE: Excuse me. Thank you. 10:17:56
11 107. This will be Exhibit 107. 10:18:14
12 (Plaintiff's Exhibit 107 was marked.) 10:18:21
13 BY MR. JAFFE: 10:18:21
14 Q. Mr. Pennecot, do you recognize the document 10:18:23
15 that I've placed in front of you as Exhibit 107? 10:18:26
16 (Witness reviews document.) 10:19:03
17 A. Yes, I do. 10:19:04
18 Q. What is it? 10:19:05
19 A. This is like a few lens designs I simulated. 10:19:16
20 Q. Why did you create this presentation that's 10:19:20
21 Exhibit 107? 10:19:23
22 A. To chat with James. 10:19:25
23 Q. James who? 10:19:27
24 A. Haslim. 10:19:27
25 Q. The front page of this presentation that 10:19:32

1 we've marked as Exhibit 107, it says, "Gaetan." 10:19:35

2 You authored this; right? 10:19:39

3 A. This is correct. 10:19:40

4 Q. And you authored it on October 28th, 2016? 10:19:44

5 A. This is what is written, but I believe it 10:19:48

6 took like a few days to get there. 10:19:50

7 Q. Was this -- did you write this before or 10:19:52

8 after the decision was made to create a diode-based 10:19:56

9 LiDAR? 10:19:57

10 A. I don't recall. 10:20:01

11 Q. And you said you created Exhibit 107 to talk 10:20:07

12 with Mr. Haslim. 10:20:07

13 Why did you create Exhibit 107 to discuss 10:20:12

14 with him? 10:20:13

15 A. So we need a basis for like designs, so I 10:20:22

16 took like a few designs that I know and I say this is 10:20:26

17 things that I believed what -- what it should be. So 10:20:36

18 it's to compare. 10:20:38

19 Q. When you said a few designs that you know, 10:20:41

20 what are you referring to? 10:20:42

21 A. So, actually, let's put it this way: 10:20:48

22 Velodyne HDL-64 RX aspheric lens, I just assumed that 10:20:58

23 the Velodyne lens was aspheric. So I don't know -- I 10:21:00

24 don't know it for sure. Like it's possible designs. 10:21:05

25 Q. And if you can turn to the page ending in 10:21:13

Page 286

1 135. 10:21:14

2 Do you see there's something called a 10:21:22

3 Benchmark 1 design? 10:21:24

4 A. Yes. 10:21:24

5 Q. What does that refer to? 10:21:26

6 A. This is a lens I had experience with -- it's 10:21:36

7 a lens design that I've already worked on. 10:21:43

8 Q. When you say "already worked on," what do you 10:21:45

9 mean by that? 10:21:46

10 A. I worked on a similar lens at Google. 10:21:51

11 Q. Is this the GBR3 lens? 10:21:54

12 A. This is the GBR lens, so GBR2, GBR3. 10:21:59

13 Q. And so the information here describing this 10:22:04

14 lens is really describing Waymo's GBR lens design; is 10:22:09

15 that right? 10:22:10

16 A. This is not correct. 10:22:11

17 Q. How is that incorrect? 10:22:14

18 A. So material is the same, aspheric front 10:22:21

19 surface. So there's -- we use an aspheric surface in 10:22:32

20 front, toroidal surface in the back. And I believe 10:22:38

21 this is the same dimensions, aperture, same focal, 10:22:51

22 however, it's not the same equation. 10:22:55

23 Q. How do you know it's not the same equation? 10:23:00

24 A. Because it's impossible to go back to the 10:23:04

25 same equation. I didn't -- you would have to remember 10:23:10

1 exactly the merit function to end up on the same 10:23:14
2 equation. 10:23:15
3 Q. And you didn't remember the merit function 10:23:17
4 for the GBR lens? 10:23:20
5 A. No. 10:23:20
6 Q. Was the Benchmark 1 design lens your best 10:23:24
7 approximation of the merit function in the GBR design? 10:23:30
8 A. Yes. 10:23:30
9 Q. Looking back at this diagram, there's six 10:23:43
10 emitting points. 10:23:45
11 Do you see that? 10:23:47
12 A. Yes, I do. 10:23:49
13 Q. Why are there six emitting points here? 10:23:53
14 A. These are my optimization angles. Basically, 10:24:02
15 I optimize lenses in different areas. You can 10:24:07
16 optimize a lens on axis, but here I wanted to optimize 10:24:12
17 on different angle. So it's probably 0 degree, 2 10:24:17
18 degree, 4 degrees, 6 degrees, 8 degrees, 10 degrees. 10:24:22
19 Q. So is what's shown here, on page 135 of 10:24:28
20 Exhibit 107, is this showing the -- kind of the layout 10:24:35
21 of where the laser emitters would be or no? 10:24:37
22 A. Not at all. 10:24:39
23 Q. How many channels was the Benchmark 1 design 10:24:48
24 designed for? 10:24:50
25 A. This is just a lens. 10:24:53